

REMARKS/ARGUMENTS

In response to the Office Action mailed April 18, 2007, Applicants request reconsideration. No claims are added, cancelled, or amended so that claims 5, 8-14, 17, 19, 22, 24, 26-28, 32-34, and 61-64 remain pending.

As in the previous Response, five independent claims of different scope are presented. In the Office Action mailed April 18, 2007, at least independent claims 5, 17, and 61 were lumped together in a commentary that appears at pages 2-4 of the Office Action. Although claim 22 is also mentioned at that location, a further discussion of claim 22 seems to appear at pages 5 and 6 of the Office Action. Most of these discussions are nearly impossible to correlate with the respective limitations of the five independent claims. No specific discussion was provided with respect to independent claims 28 and 61. Applicants again respectfully request a detailed explanation of the basis of the rejection of each of the five independent claims, separately for each claim, since the claims are not identical and each emphasizes a particular feature of the disclosed invention.

Because it has been difficult to understand the rejections and to form a clear understanding of the basis of the rejections, Applicants respond here, to the best of their understanding, with respect to the rejections of the independent claims. Applicants specifically request clarification of the reference to column 78 of the principal reference appearing near the end of page 3 of the Office Action, since that reference includes only 18 columns. Likewise, Applicants are perplexed at the assertion that the rejection made in the Office Action mailed April 18, 2007 is different from the prior art rejection made in the Office Action mailed May 16, 2006, thereby making the previous arguments moot. The same references are applied in the same combination to the same claims in both Office Actions. Since the prosecution of this patent application is approaching the point of potential appellate review, Applicants respectfully request a clear statement of any further rejection, or any

renewed rejection, so that, in the event of an appeal, the issues presented to the Board are well defined.

An important feature of the invention, as explained in the previous Responses, relates to the processing of previously recorded information with a relatively inexpensive, low-computing-power apparatus. In the process that is the subject of the invention, previously recorded information, for example, audio information, is transferred from a previously recorded source, in an uncompressed format, to a memory device. Then, subsequently, that information, generally referred to as a set of signals in the claims, is retrieved from the memory device to which it has been transferred and converted into a compressed format. The information in the compressed format is subsequently stored, either in the same memory or storage device from which the uncompressed information was retrieved or in a different information storage device or memory. The memory space previously occupied by the set of signals in the uncompressed format is then released for re-use in the process. Also of importance and explained in many claims is the retrieval of the set of signals in the compressed format, the conversion of those signals to an uncompressed format and their reproduction for perception. In order to minimize the computing power needed, these processes are carried out in a prioritized way so that few, perhaps even only one, such process is being carried out at one time by a relatively low computing-power processor. For example, there is no conversion of a set of signals in an uncompressed format to signals in a compressed format when there is an ongoing retrieval of a set of signals in the compressed format and their conversion into an uncompressed format for perception. These features are apparent in the five independent claims previously presented and re-presented here.

All pending claims were rejected as obvious over Fiedler (U.S. Patent 6,804,638) in view of Dye (U.S. Patent 6,370,631). This rejection is respectfully traversed.

As best understood, Dye was relied upon solely as describing a compression/decompression algorithm to supply the parts of the claimed invention

relating to compressing and decompressing signals, digital signals, and audio tracks, acknowledged to be absent from Fiedler. Assuming, for the sake of argument, that Dye includes such a disclosure, then the remainder of the claimed subject matter must be found in Fiedler for the rejection to be properly maintained with respect to the pending claims.

Fiedler describes an apparatus and associated method directed to recording, essentially continuously, a source of information for which a subsequent decision may be made for permanent storage of that information. The previously unrecorded information being received is continually recorded on a circular buffer of relatively large, but finite, capacity. Recording in that circular buffer begins at some arbitrary time and information is continuously recorded until the circular buffer is filled. When the capacity of that circular buffer is nearly reached, then the contents of the circular buffer may be transferred to an acquisition buffer for long term or permanent storage or be discarded as new information is continually flowing into the circular buffer.

The circular buffer in Fiedler permits a belated decision on whether to store the incoming information, a decision that is made sometime after the information is received and initially stored in the circular buffer. The deadline for making the decision as to storage depends upon the capacity of the circular buffer and of the acquisition buffer. An example in Fiedler concerns recording of a telephone conversation that may be illegal until a participant's permission is obtained. If and when permission is obtained for recording, the recording party can then capture the telephone conversation from the beginning, based on the tentative recording in the circular buffer. As described by Fiedler, the beginning information is saved until a "discard" or a "keep" decision is made with respect to the telephone conversation example. Fiedler provides other examples of conceptually similar delayed decisions in determining whether to save, permanently, live information that is being captured continuously.

The invention as defined by the pending claims is substantially different from and is neither described by nor suggested by Fiedler, even omitting the compression

and decompression features for which reliance was placed upon Dye. As previously explained, and succinctly described at pages 6-9 of the patent application, even using the reduced computing capacity of a microprocessor employed in the invention, a 60-minute music CD can be stored on a hard disk within six to eight minutes. The information from the CD is transferred to the first memory or storage device in an uncompressed format, transferred again, converted to a compressed format and finally stored in that compressed format.

Turning initially to independent claims 5 and 17, which have been lumped together in the rejection, it is apparent that those independent claims incorporate some similar method steps. For example, both claims expressly include retrieving only one set of signals in an uncompressed format at a time from a second memory device and compressing only one such set of signals at a time. By limiting the retrieval, compression, and subsequent storage in the compressed format to one set of signals at a time, the processor carrying out this processing need not have a large computing power so that the methods can be practiced inexpensively.

This important feature of the invention is described, although not consistent with the language of the claims, in a single paragraph appearing near the end of page 3 of the Office Action. However, it is impossible to correlate what appears in that paragraph with any potentially related passage of Fiedler. The cited passage in column 7, lines 38-42 of Fiedler includes no disclosure whatsoever concerning limiting retrieval and compression of signals to one set of signals at a time. In fact, just the opposite disclosure appears beginning in line 42 in column 7 of Fiedler. There it is described that compression occurs "concurrently", i.e., simultaneously, with recording, quite the contrary of the invention. The further reference to column 78 of Fiedler and lines 10-22 cannot be correlated with any pertinent description in either of columns 7 and 8 of Fiedler, a patent that includes only 16 columns. Since this important feature of claims 5 and 17 has not been shown to be described or suggested in Fiedler, the rejection is clearly erroneous and, upon reconsideration, should be withdrawn.

Further, each of claims 5 and 17 describes making available, for future storage, memory space in the second memory device after the set of signals formerly occupying that memory space have been compressed into a compressed format. This memory release feature, which must be considered in combination with the other steps of claims 5 and 17, finds no counterpart, by disclosure or suggestion, in Fiedler. Of course, in the circular buffer of Fiedler, there is continuing recirculation of memory space that may be overwritten. But that overwriting is not the same as releasing memory space in a memory that was formerly occupied by uncompressed signals that have been compressed as described in claims 5 and 17.

This limitation is not mentioned explicitly in the rejection in the Office Action. At best, there seems to be some reference to re-storing the compressed data to create more memory space, with reference being made to column 7, lines 34-40 of Fiedler. However, that passage only describes the gradual filling of a memory in Fiedler, depending upon a "capture interval." There is no discussion of any response to the diminishing memory area except with respect to a change in the capture interval and concurrent compression of captured data. As already described, that arrangement is substantially different from what is disclosed in the present patent application and claimed in claims 5 and 17. Accordingly, because of the two apparent differences between those claims, claims 5, 8-14, 17, and 19 cannot be obvious in view of Fiedler, even as modified by Dye.

Finally, with respect to those claims 5 and 17, as previously stated, whatever else Fiedler may describe, it is apparent that Fiedler describes an ongoing process of transferring incoming information that is *not* previously recorded. The sequential processes of independent claims 5 and 17 cannot be suggested by Fiedler because an essential point in Fiedler is the belated decision concerning further storage and transfer of the information from the circular buffer. Moreover, in Fiedler there is no retrieval in units of information, one unit at a time, in the hypothesized conversion of stored signals from the uncompressed format to the compressed format, as in the

methods of claims 5 and 17. For this further reason, the rejection of those claims and their dependent claims should be withdrawn.

The method of claim 22 includes an important prioritization, recited in the final paragraph of that claim, that permits the use of a low computing-power processor. Initially, that paragraph describes retrieving and decompressing audio tracks so that the tracks can be reproduced for perception. Other paragraphs of that claim describe the transfer of previously recorded information between first and second storage devices in an uncompressed format, the subsequent retrieval and compression of audio tracks from the second storage device, and storage of the audio tracks in the compressed format in that second storage device. These processes do not all occur simultaneously. Rather, as described in the final paragraph of claim 22, the only time that compressing of a set of audio tracks takes place is when there is no pending request for an audio track to be played, i.e., retrieved in a compressed format and converted to an uncompressed format. Further, there is no simultaneous compressing of audio tracks and decompressing of audio tracks according to the claimed method. These express limitations on the method again provide the advantages of low cost in the execution of the method so that apparatus performing the method can be readily manufactured for consumers at an acceptable market price.

Nothing similar to the prioritizing arrangement of claim 22 is described anywhere within Fiedler. Applicants do not dispute that, as asserted in the Office Action, the information of Fiedler that is stored in the circular buffer and contingently transferred to the acquisition buffer might be considered audio tracks. However, there is no discussion of any prioritization with respect to compressing and decompressing steps in Fiedler as in claim 22. Those steps are only vaguely alluded to in Fiedler and not even asserted to be present in Dye.

In discussing claim 22 at pages 5 and 6 of the Office Action of April 18, 2007, the Examiner made reference to "retrieving and compression of sets of signals one set at a time," a limitation that does not appear in claim 22. Further, the discussion referring to prioritization in the first full paragraph at page 6 of the Office Action is

not relevant to the imitation of claim 22 concerning the “predetermined priority.” The decision in Fiedler not to record permanently some temporarily captured data from the circular buffer does not relate to the prioritization mentioned in claim 22. That prioritization relates to compressing and decompressing, not to making a decision concerning whether to store particular data.

Further, the cited passage of Fiedler, at column 7, lines 26-30 shows that there is no prioritization even with respect to the determination as to whether captured data should be stored. Instead, only preference for deferring storage until an acquisition buffer is about to be overwritten is described. That passage, as already stated, bears no connection to the prioritization between compression and decompression of data in relationship to a pending request for playing of audio data, as expressly described in the final paragraphs of claim 22.

Finally, the other cited parts of Fiedler, in columns 4, 5, and 10, do not relate to the prioritization of the final paragraph of claim 22 and the commentary in the Office Action does not supply an explanation of how those passages actually relate to that prioritization. In fact, the first of the cited passages again describes concurrent operations when, by contrast, a serial arrangement is described in claim 21 with respect to demands made upon a processor that controls the method claimed. The rejection of claim 22, and its dependent claims 24, 26, and 27, should now be withdrawn.

Claim 28 is directed to a “system” including a processor that is programmed to carry out a method, like the method described in claim 22. The system of claim 28 prioritizes compressing a set of digital signals and storing a set of digital signals after compression, as compared to retrieving and converting to an uncompressed format digital signals that had been previously compressed. As explained in claim 28, the processor gives priority to converting a set of signals in a compressed format into an uncompressed format, i.e., for reproduction and perception, over converting a set of digital signals in an uncompressed format into the compressed format. In other words, the processor is programmed so that these processes do not occur simultaneously and

reproduction of stored signals is given priority over further processing of signals to be stored. Thus, the system minimizes the computing power required while providing the user with apparently seamless reproduction of stored information that has been compressed to minimize the memory capacity needed by the system.

No specific commentary on the limitations of claim 28, and its dependent claims 32-34, has appeared in any Office Action. The system defined by claim 28 provides a prioritization, similar to that of claim 22, which is not described or suggested anywhere in Fiedler or Dye. Therefore, the rejection of claim 28 and dependent claims 32-34 should be withdrawn. Applicants request that any new or continued rejection include a clear explanation of the specific portions of Fiedler, Dye, and any other references relied on in rejecting those claims 28 and 32-34.

Independent method claim 61 also describes an important prioritization in a method according to the invention. This prioritization, like other features of the invention, is directed to enabling a low cost, low-computing power apparatus to be used in the claimed process. According to claim 61, audio signals not yet converted to a compressed format are converted into that compressed format and stored, but only when the processor is not controlling accessing of audio segments already stored.

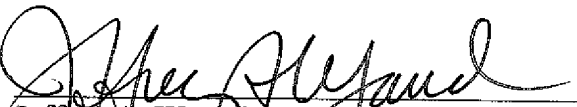
Claim 61, although substantially different from claims 5 and 17, was rejected in the same group with those claims and no separate explanation or foundation for the rejection of claim 61 was provided in the Office Action.

Since there is no express description of the basis of the rejection of claim 61 and its dependent claims 62-64, perhaps no response to the rejection is truly necessary. It suffices to point out that Fiedler contemplates a relatively robust processor so that there is no need for nor any description of limiting the use of the processor in retrieving stored audio signals, converting the format of the audio signals, and storing the compressed audio signals *only* when the processor is not occupied in accessing an audio segment stored in a memory device. Fiedler clearly contemplates, in view of the numerous descriptions of concurrent processes, that there is no limitation in the capacity of the processor that would require the prioritization of claim

61. Instead of that serial processing of the invention, Fiedler repeatedly describes concurrent, i.e., parallel, processing. See, for example, column 4, lines 30-34, column 6, lines 59-63, column 7, lines 42-46, column 11, lines 48-52, and even claim 2 of Fiedler. Thus, Fiedler, even if modified with Dye, cannot begin to suggest the invention as defined by claim 61 and its dependent claims 62-64. The rejection of those claims should be withdrawn.

Reconsideration and allowance of all claims now pending are earnestly solicited.

Respectfully submitted,


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